

# INTERNATIONAL EXECUTIVE REVIEW



Editor: René Oudeweg

Bulletin #9 Fortissimo, Ffmpeg

\* ff<sup>1</sup>

Fortissimo wordt aangegeven met *ff* in vette cursieve schreefletters onder de desbetreffende partij, en in partijen met twee balken zoals voor piano tussen de balken, tenzij beide balken verschillende dynamiek benodigen.

Fast Forward

effe

Foxy Foxtrot

*ff*

\* FFmpeg<sup>2</sup>

The project was started by Fabrice Bellard[11] (using the pseudonym "G rard Lantau") in 2000, and was led by Michael Niedermayer from 2004 until 2015.[12] Some FFmpeg developers were also part of the MPlayer project.

The name of the project is inspired by the MPEG video standards group, together with "FF" for "fast forward", so FFmpeg stands for "Fast Forward Moving Picture Experts Group". [13] The logo represents a zigzag scan pattern that shows how MPEG video codecs handle entropy encoding. [14]



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1 <https://nl.wikipedia.org/wiki/Fortissimo>

2 <https://en.wikipedia.org/wiki/FFmpeg>

## Legal aspects

FFmpeg contains more than 100 codecs,<sup>[70]</sup> most of which use compression techniques of one kind or another. Many such compression techniques may be subject to legal claims relating to [software patents](#).<sup>[71]</sup> Such claims may be enforceable in countries like the United States which have implemented software patents, but are considered unenforceable or void in member countries of the [European Union](#), for example.<sup>[72]</sup><sup>[*original research*]</sup> Patents for many older codecs, including AC3 and all MPEG-1 and MPEG-2 codecs, have expired.<sup>[*citation needed*]</sup>

FFmpeg is licensed under the LGPL license, but if a particular build of FFmpeg is linked against any GPL libraries (notably [x264](#)), then the entire binary is licensed under the GPL.

## Projects using FFmpeg

Main category: [Software that uses FFmpeg](#)

FFmpeg is used by software such as [Blender](#), [Cinelerra-GG Infinity](#), [HandBrake](#), [Kodi](#), [MPC-HC](#), [Plex](#), [Shotcut](#), [VirtualDub2](#) (a [VirtualDub](#) fork),<sup>[73]</sup> [VLC media player](#), [xine](#), [Remotion](#) and [YouTube](#).<sup>[74]</sup><sup>[75]</sup> It handles video and audio playback in [Google Chrome](#)<sup>[75]</sup> and the Linux version of Firefox.<sup>[76]</sup> [GUI front-ends](#) for FFmpeg have been developed, including [Multimedia Xpert](#)<sup>[77]</sup> and [XMedia Recode](#).

FFmpeg is used by [ffdshow](#), [FFmpegInterop](#), the [GStreamer FFmpeg plug-in](#), [LAV Filters](#) and [OpenMAX IL](#) to expand the encoding and decoding capabilities of their respective multimedia platforms.

As part of [NASA's Mars 2020](#) mission, FFmpeg is used by the [Perseverance rover](#) on Mars for image and video compression before footage is sent to Earth.<sup>[78]</sup>